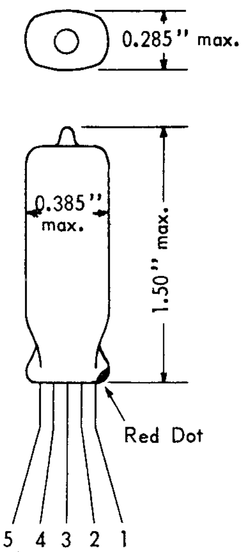
SUBMINIATURE PENTODE

TYPE 2E31

Excellence in Electronics

The 2E31 is a filament type, fully-shielded pentode of subminiature construction designed for use as an RF or IF amplifier in applications requiring economy of space, weight and battery drain. The flexible terminal leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard inline subminiature sockets may be used by cutting the leads to a suitable length.



MECHANICAL DATA

ENVELOPE: T-2X3 Glass ▲

BASE: None (0.016" tinned flexible leads. Length: 1.5" min. Spacing: 0.048" center-to-center)

TERMINAL CONNECTIONS: *(Red Dot is adjacent to Lead 1)*

Lead 1 Plate
Lead 2 Grid #2
Lead 3 Filament, negative; shield ■
Lead 4 Grid #1
Lead 5 Filament, positive ■

MOUNTING POSITION: Any

ELECTRICAL DATA

DIRECT INTERELECTRODE CAPACITANCES: (μμfds.)

Grid to Plate: (g1 to p)	0.08 max.
Input: g1 to (f+g2)	4.2
Output: p to (f+g2)	4.0

DESIGN CENTER MAXIMUM RATINGS:

Filament Voltage (dc) ●	1.25 volts
Plate Voltage	45 volts
Grid #2 Voltage	45 volts
Total Cathode Current	1.0 ma.

CHARACTERISTICS AND TYPICAL OPERATION - CLASS A1 AMPLIFIER:

Filament Voltage (dc) ●	1.25 volts
Filament Current	50 ma.
Plate Voltage	22.5 volts
Grid #2 Voltage	22.5 volts
Grid #1 Voltage ⧫	0 volts
Plate Resistance (approx.)	0.35 megohms
Transconductance	500 μmhos
Plate Current	0.4 ma.
Grid #2 Current	0.3 ma.
Grid #1 Voltage (approx.) for plate current = 10 μa.	-2.0 volts

▲ *Bulb is entirely coated with a metallic shield connected to Lead 3.*

⧫ *Grid resistor = 5 megohms.*

■ *Grid #3 is composed of two deflector plates, one being connected to Lead 3 and the other to Lead 5.*

● *Do not use in series filament circuits. Filament voltage must never exceed 1.55 volts.*

Tentative Data